



March 11, 2008

Via Electronic Filing

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW, TW – A325
Washington, DC 20554

Re: WT Docket No. 07-195 – Notification of Oral Ex Parte Presentation

Dear Ms. Dortch:

On March 10, 2008, Dr. Paul J. Kolodzy, Senior Technology Advisor to M2Z and the undersigned met with Julius Knapp, Jamison Prime, Ira Keltz, Patrick Forster, Ahmed Lahjouje and Alan Stillwell from the Office of Engineering and Technology. We discussed the record in the AWS-3 supporting a licensing regime that utilizes technically neutral and flexible rules. We further emphasized that technically neutral and flexible service rules (similar to those being used in Auction 73) would allow the eventual licensee for the band to manage interference issues in a reasonable manner.

Enclosed are copies of the materials we provided to the meeting participants.

Pursuant to Section 1.1206(b) of the Commission rules, an electronic copy of this letter is being filed. Please let me know if you have any questions regarding this submission.

Sincerely,

A handwritten signature in black ink, appearing to be 'Uzoma Onyeije', written over a horizontal line.

Uzoma Onyeije

cc: Mr. Julius Knapp, Mr. Jamison Prime, Mr. Ira Keltz, Mr. Patrick Forster,
Mr. Ahmed Lahjouje, Mr. Alan Stillwell

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AWS-3 Technical Discussions

10 March 2008

Technical Neutrality and Flexible Use Should Apply to AWS-3

- **FCC has strived for technical neutrality in its allocations for the BRS/EBS, Lower 700 MHz, and Upper 700 MHz bands**
 - » Focus on developing rules that promote cooperation between licensees
 - » Let licensees, through working groups and standards organizations, determine mutually beneficial rules
 - » Rules designed to prevent harmful interference while maximizing consumer benefits
- **FCC has emphasized its desire to promote broadband services and not unduly restrict TDD technology deployment**
- **FCC has recently incorporated aggressive buildout requirements for 4G Networks (i.e., 700 MHz)**
 - » The technical environment for the 700 MHz assignment and allocation is not appreciably different from AWS-3
 - » Both AWS and 700 MHz bands are to be newly deployed without an installed base so provide “clean sheet” for applying technical neutral rules

Rules should prevent Harmful Interference When and If They Occur

- **Low probability scenarios are inappropriate for analysis because they lead to inefficient outcomes**
 - » Many regulators in the international community are discarding this type of analysis because it leads to spectrally inefficient outcomes that do not maximize consumer welfare
- **FDD-FDD spectral interfaces that focus on Base-to-Mobile Interference**
- **FDD-TDD spectral interfaces focus on Base-to-Base (FDD to TDD) and Mobile-to-Mobile (TDD to FDD) Interference**
 - » Base-to-Base analysis can be addressed through static analysis because the environment is fixed
 - » Mobile-to-Mobile analysis can only be addressed through dynamic analysis (statistical techniques) because the radio environment is dynamic
 - Spatially, Spectrally, Power Control, Adaptive Modulation, Duty Cycle, Density, Mobility

State-of-the-Art Analysis by Ofcom of FDD/TDD Coexistence

Ofcom commissioned Mason Report shows that there is very low probability of harmful interference even in the most conservative analysis (e.g., worst-case analysis)

- » Analysis requires the following dimensions to be understood:
 - Users in the Each Band
 - Mobile Receivers at Minimum Margin
 - Mobile Transmitter at Higher Power
 - Spatial Proximity of Users
 - Duty Cycle/Probability of Receiving Signal
 - Duty Cycle/Probability of Transmitting Signal
 - Required Average Signal Strength for producing Harmful Interference

Mason Report indicates probability of interference of approximately 0.02% in high density FDD/TDD adjacent operations

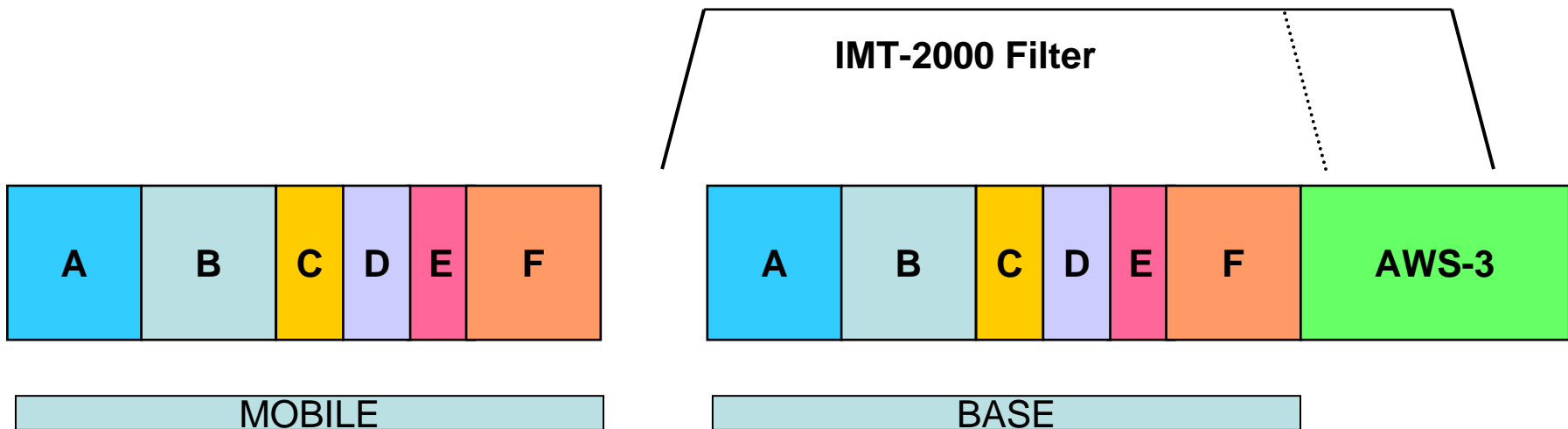
- » Spatial and Temporal Correlation and other temporal dynamic factors not included

Band Specific Rules Require a High Degree of Analysis

Monte Carlo analysis can best way for simulating interference scenarios and developing band specific rules

- » Account for scenario dynamics (for both Base Station and Mobile Stations)
- » Need to:
 - Determine number of Users in the Each Band
 - Deploy randomly users and base stations
 - Compute distribution of transmission signals in spectral location and power
 - Compute distribution of received signals in spectral location and power
 - Use distribution of transmission data rates
 - Use distribution of receiving data rates
 - Duty Cycle/Probability of Transmitting Signal
 - Compute maximum received signal

AWS Band Plan



- Harmful interference analysis should use filters optimized for AWS-1 operations